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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,755	03/14/2005	Sang-Jin Kim	3449-0454PUS1	8939

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BIRCH STEWART KOLASCH & BIRCH  
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EXAMINER
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ROJAS, BERNARD

ART UNIT	PAPER NUMBER
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2832

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	01/05/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 01/05/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

**Office Action Summary**

Application No.

10/527,755

Applicant(s)

KIM, SANG-JIN

Examiner

Bernard Rojas

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 and 22-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-20 and 22-28 is/are rejected.
- 7) ☒ Claim(s) 29 and 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>09262006</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

The drawings were received on 10/10/2006. These drawings are acceptable.

### ***Response to Arguments***

Applicant's arguments filed 10/10/2006 have been fully considered but they are not persuasive.

Claim 17, Applicant states that the spring 310 of Hiroyoshi et al. is flat. As can be clearly seen in figure 1, the upper spring of Hiroyoshi et al. is curved upward while the lower spring is curved downward when the weight is in it's neutral position.

Claim 23, Applicant states that the elastic unit 5 of Sakai et al. is a flat (i.e. 2-dimensional plate) opposed to the claimed 3-dimensional plate. The elastic unit 5 of Sakai et al. is flat, but it is still 3-dimensional as it posses a width, length [figure 2a] and a height [figure 1b].

### ***Claim Objections***

Claim 16 is objected to because of the following informalities: there appears to be a typographical error in line 2 of the claim, "...single magnetic formed..." Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what limitation is being claimed by "wherein the magnetic force generating unit is provided at least one from a lower side and an upper side of the weight". For examination purposes, this will be interpreted as, "wherein the magnetic force generating unit is provided across from at least one of a lower side and an upper side of the weight".

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 17-20 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by**

**Hiro Yoshi et al. [US 5,682,132]**

Claim 17, Hiro Yoshi et al. discloses a vibration device [figure 1] comprising: a casing body [410, 420]; a weight [120] including a magnet [110] disposed in the casing body; a strip [310] of a closed-curve shape and a plurality of support legs extended from

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the strip, said strip being connected to the weight and said plurality of support legs being connected to the casing body such that the weight is suspended in the casing body; and a magnetic force generating unit [220] configured to generate a magnetic force to vibrate the weight in the casing body, wherein the support legs form a downwardly turning curve in an axial direction of the strip [figures 3, 8 and 10-12].

Claim 18, Hiroyoshi et al. discloses the vibration device according to claim 17, wherein the strip has a polygonal or circular shape [figures 3, 8 and 10-12].

Claim 19, Hiroyoshi et al. discloses the vibration device according to claim wherein the number of the support legs is 2 or 4 [figures 3, 8 and 10-12].

Claim 20, Hiroyoshi et al. discloses the vibration device according to claim 17, further comprising a fixing member [210] attached to the case body and configured to support ends of the support legs.

Claim 22, Hiroyoshi et al. discloses the vibration device according to claim 17, wherein the vibration device is included in a communication terminal or a vibrating sound instrument [col. 1 lines 5-10].

Claims 23, 24, 27 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Sakai [US 6,850,138].

Claim 23, Sakai discloses a vibration device [figure 1B] comprising: a case [12]; a terminal plate attached to one side of the case and connected to an external power source; a vibrating plate [9] formed in an upper portion of the case; voice coil [10] combined below the vibrating plate; magnetic force generator [1, 2] formed below the voice coil; a cubic elastic unit [5] for elastically supporting the magnetic force generator;

and upper and lower covers formed above and below the case to protect inner components [figure 1B].

Claim 24, Sakai discloses the vibration device according to claim 23, wherein the magnetic force generator comprises: a magnet [2]; a yoke [1] formed to surround the magnet; and a plate [3] seated upon the yoke.

Claim 27, Sakai discloses the vibration device according claim 23, wherein the elastic unit is a coil spring having circular or polygonal conical shape [figure 2A, col. 3 lines 8-10].

Claim 28, Sakai discloses the vibration device according to claim 23, wherein the vibration device has a sound function [col. 1 lines 10-15].

### ***Claim Rejections - 35 USC § 103***

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroyoshi et al. [US 5,682,132] in view of Applicant's Admitted Prior Art [AAPA] figure 1.

Claim 1, Hiroyoshi et al. discloses a vibration device [figure 1] comprising: upper [410] and lower [420] cases combined with each other; a magnetic force generating unit [220] provided on at least one surface of the upper and lower cases [figure 1]; at least one magnet [110] formed to be opposite to the magnetic force generating unit; a weight [120], extending in a circumferential direction, which forms one body together with the magnet; at least one elastic unit [310] elastically supporting the weight in the case; and a fixing member [210] for fixing ends of the at least one elastic unit.

Hiroyoshi et al. fails to teach the claimed location of the magnetic force generating unit, wherein it is provided across from at least one of a lower side and an upper side of the weight to accommodate the weight extending in a circumferential direction.

AAPA discloses a vibration device in which the magnetic force generator [30] is located across from at least one of a lower side and an upper side of the weight [50].

It would have been obvious to one having ordinary skill in the art at the time the invention was made to change the location of the magnetic force generator as shown by AAPA, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

Claim 2, Hiroyoshi et al. discloses the vibration device according to claim 1, wherein the at least one elastic unit includes a strip of a closed-curve shape and a plurality of support legs extended from the strip, and wherein the support legs form a downwardly turning curve in an axial direction of the strip [figures 3, 8 and 10-12].

Claim 3, Hiroyoshi et al. discloses the vibration device according to claim 2, wherein the strip has a polygonal or circular shape [figures 3, 8 and 10-12].

Claim 4, Hiroyoshi et al. discloses the vibration device according to claim 2, wherein the at least one elastic unit includes at least two support legs [figures 3, 8 and 10-12].

Claim 5, Hiroyoshi et al. discloses the vibration device according to claim 1, wherein the at least one elastic unit is a coil spring of a circular or polygonal conical shape [figure 9].

Claim 6, Hiroyoshi et al. discloses the vibration device according to claim 1, wherein the magnet is formed on only one surface [the outer periphery] of the weight opposite to the magnetic force generating unit.

Claim 7, Hiroyoshi et al. discloses the vibration device according to claim 1 wherein the magnetic force generating unit is a coil [220].

Claim 8, Hiroyoshi et al. discloses the vibration device according to claim 1, wherein the weight is made of tungsten [col. 7 lines 30-38].

Claim 9, Hiroyoshi et al. discloses the claimed invention except for a magnet mounting groove of a predetermined depth is formed in one of the upper and lower surfaces of the weight. It would have been obvious to one of ordinary skill in the art at



the time the invention was made to change the magnet mounting method of Hiroyoshi et al. to include a groove in order to more securely attach the magnet to the out periphery of the weight.

Claim 10, Hiroyoshi et al. discloses the vibration device according to claim 1, wherein the at least one elastic unit includes two elastic units, and wherein elastic unit insert grooves [groove between 120 and 130] are formed on the upper and lower surfaces of the weight so that the at least two elastic units are inserted and fixed therein respectively.

Claim 11, Hiroyoshi et al. discloses the vibration device according claim 10, wherein the fixing member includes protrusions at upper and lower ends to be contacted with the upper and lower cases and a recess depressed at a center thereof, and wherein fixing grooves are formed in ends of the protrusions respectively so as to fix ends of the at least two elastic units [col. 9 lines 15-26].

Claim 12, as best understood, Hiroyoshi et al. discloses the vibration device according to claim 11, wherein a recess is formed to ensure a space sufficient for a weight extension to be capable of moving vertically [figure 1].

Claim 13, Hiroyoshi et al. discloses the claimed invention except for the claimed mechanical elastic unit mounting means. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use another elastic unit mounting means as taught by Hiroyoshi et al. [col. 9 lines 20-26] to change the mounting strength or simplify production.

Claim 14, Hiroyoshi et al. discloses the claimed invention except for magnetic force generating unit being formed on one surface of each of the upper and lower cases. It would have been obvious to one of ordinary skill in the art at the time the invention was made to alter the location of the magnetic force generating unit since applicant has not disclosed that the claimed location solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the configuration as shown by Hiroyoshi et al.

Claim 15, Hiroyoshi et al. discloses the claimed vibration device with the exception of the at least one magnet includes at least two magnets are formed on both surfaces of the weight. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use two smaller magnets instead of one large magnet, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Claim 16, Hiroyoshi et al. discloses the vibration device according to claim 1, wherein there is one magnet formed to pass through the weight vertically [figure 1].

Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai [US 6,850,138], as applied to claim 23 above, in view of Hiroyoshi et al. [US 5,682,132].

Sakai discloses the claimed invention except for the design of the claimed elastic unit.

Hiroyoshi et al. teaches a vibration device [figure 1], with various configurations for the elastic unit including a circular or polygonal strip of a ring shape and plurality of support legs [2 or 4] extended from the strip, and the support legs form a downwardly turning curve in an axial direction of the strip [figures 3, 8 and 10-12].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an alternate spring configuration in the vibration device of Sakai as taught by Hiroyoshi et al. in order to adjust the vibration characteristics to the moving part coupled to the elastic element.

#### ***Allowable Subject Matter***

Claims 29 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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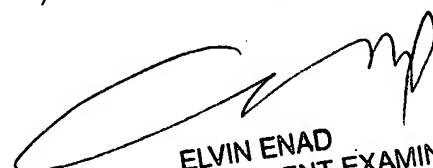
mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Rojas whose telephone number is (571) 272-1998. The examiner can normally be reached on M-F 8-4:00), every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Br

  
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22DEC06